

Notice of Allowability

Application No.

09/685,857

Examiner

Harry Vartanian

Applicant(s)

KOWALEWSKI ET AL.

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/7/2005.
2. ☒ The allowed claim(s) is/are 1,3,4 and 6.
3. ☒ The drawings filed on 10/11/2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 10/2000
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

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EXAMINER'S AMENDMENT

1. An extension of time under 37 CFR 1.136(a) is required in order to make an examiner's amendment which places this application in condition for allowance. During a telephone conversation conducted on 3/4/2005, Aaron Deditch requested an extension of time for 1 MONTH(S) and authorized the Director to charge Deposit Account No. 11-0600 the required fee of \$120 for this extension and authorized the following examiner's amendment. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In Claim 1, please make the following changes:

A method for receiving in a mobile station radio signals transmitted from a base station to at least one mobile station, ~~the radio signals in the base station having symbols, being code-spread using one code for each mobile station, being predistorted in accordance with the expected transmission properties regarding each mobile station, and being modulated with regard to their phases,~~ the method comprising:

code-despreading the radio signals transmitted from the base station, wherein the radio signals transmitted from the base station have symbols and are code-spread using one code for each mobile station, and are predistorted in accordance with the expected transmission properties regarding each mobile station, and are modulated with regard to their phases;

determining the phases of the radio signals for each of the symbols to phase demodulate the radio signals;

mapping the determined phases onto a phase zone in accordance with a preestablished rule;

forming an average value from a preestablished number of the determined phases;

determining a phase correction factor from the average value; and

multiplying the phase correction factor by the demodulated radio signals in order to correct a phase error before the radio signals are detected;

wherein the phase correction factor is determined using scaling and conjugation of the average value.

Please CANCEL Claim 2.

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In Claim 4, please make the following changes:

A mobile station for transmitting and receiving radio signals, ~~the mobile stations receiving code spread radio signals and transmitting code spread radio signals together with training signals, the radio signals having symbols, the mobile station receiving radio signals that have been predistorted in accordance with the expected transmission properties of the radio channels, the mobile stations modulating, with regard to their phase, the radio signals to be transmitted,~~ the mobile station comprising:

a receiver adapted to:

receive code-spread radio signals and transmit code-spread radio signals together with training signals, wherein the radio signals have symbols and have been predistorted in accordance with the expected transmission properties of the radio channels;
code-despread radio signals transmitted to the mobile station;
determine the phases of the radio signals for each of the symbols to phase demodulate the radio signals;
map the determined phases onto a phase zone in accordance with a preestablished rule;
form an average value from the mapped phases;
calculate a phase correction factor from the average value; and
multiply the phase correction factor by the code-despread radio signals in order to correct a phase error before a data detector detects the radio signals;
wherein the receiver calculates the phase correction factor by scaling and conjugating the average value.

Please CANCEL Claims 5 and 7-8.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry Vartanian whose telephone number is 571.272.3048. The examiner can normally be reached on 10:00-6:30 Mondays to Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571.272.3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Harry Vartanian
Examiner
Art Unit 2634

HV


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